



# Camp Stanley Storage Activity Groundwater Contamination – December 2004 Sampling FACT SHEET

No. 21 – March 2005

*The purpose of this fact sheet is to provide an overview of the quarterly groundwater sampling conducted in December 2004. Future fact sheets will be issued to provide additional information regarding on-going sampling, investigation, and cleanup activities. The results for all groundwater sampling events are available in the Camp Stanley Storage Activity (CSSA) Environmental Encyclopedia located at the downtown San Antonio Public Library, 600 Soledad Street, behind the Reference Desk in the Government Documentation Section on the 2nd floor, or on the internet at [www.stanley.army.mil](http://www.stanley.army.mil).*

## On-post Groundwater Monitoring

On-post groundwater monitoring has been conducted since 1991 as part of the Camp Stanley Storage Activity (CSSA) environmental program. The wells sampled include drinking water, monitoring, and agricultural/livestock wells. The laboratory results obtained from the December 2004 sampling indicated minor changes to volatile organic compound (VOC) levels on-post as compared to findings reported in previous fact sheets.

All active on-post drinking water wells are analyzed quarterly for the metals arsenic, cadmium, lead, barium, chromium, copper, nickel, zinc, and mercury. All CSSA monitoring and agricultural/livestock wells are analyzed for those nine metals annually. They were last sampled in June 2004, and no metals results were above the appropriate U.S. Environmental Protection Agency (EPA) maximum contaminant level (MCL), action level (AL), or secondary standard.

## CSSA Off-post Groundwater Monitoring Plan

CSSA describes its off-post groundwater monitoring plan in its *Off-Post Monitoring Program and Response Plan*, July 2001 (Plan). The goals of this Plan are to confirm that drinking water meets EPA and Texas Commission on Environmental Quality (TCEQ) safe drinking water standards, to determine where VOC contamination has migrated, monitor off-post water wells near known CSSA VOC source areas, and to respond according to the Plan if contaminant levels in those wells exceed standards. As part of the Plan, 31 off-post wells were sampled in December 2004.

Off-post water wells are selected for testing based on continued protection of drinking water and to provide detailed information for the environmental program. Factors such as well location, proximity to other detections, screened interval, sampling access, and previous sampling results were all considered.

CSSA takes action if VOC contamination is detected in off-post wells at concentrations greater than 90 percent of the MCL or above 4.5 parts per billion (ppb) for tetrachloroethene (PCE) and trichloroethene (TCE). This action includes supplying bottled water to the affected residents within 24 hours of the detection and resampling the well for confirmation. If additional sampling confirms previous test results, CSSA will either install and maintain a granular activated carbon (GAC) filter which will remove contaminants from the water, or connect the well owner to an

alternate water supply for as long as contaminant levels exceed standards. Seven GAC filtration systems have been installed for off-post water wells: LS-7 (August 2001), LS-6 (August 2001), RFR-10 (two units, October 2001), RFR-11 (October 2001), LS-2/LS-3 (April 2002), and OFR-3 (April 2002).

## December 2004 Groundwater Sampling Results

The locations of all off-post wells sampled in December 2004 are shown on Figure 1. According to the EPA drinking water standards, concentrations below 5.0 ppb for PCE and TCE are considered safe. Table 1 (see back) presents groundwater analytical data for PCE and TCE from December 2004. Nineteen wells had VOC detections. One well, RFR-10, exceeded the MCL for PCE and TCE in the December 2004 sampling event. Well RFR-11 exceeded the MCL for PCE, but not for TCE. PCE and/or TCE concentrations detected in wells OFR-3, LS-2, LS-3, LS-6 and LS-7 were below the MCL and all other VOC detections were below the laboratory reporting limit. In all other wells tested, VOC detections were below the applicable MCLs in drinking water and below the laboratory reporting limit (RL) for PCE and TCE and do not prevent usability of these wells. CSSA will continue to sample both on- and off-post groundwater on a quarterly basis for the foreseeable future. CSSA will continue to coordinate this groundwater monitoring program with the regulatory agencies and other potentially affected parties, including the EPA, TCEQ, Fort Sam Houston, City of Fair Oaks, Fair Oaks Water Utilities, Bexar Metropolitan Water District, Bexar County Commissioners' office, State Representatives' offices, local, state, and federal elected officials, and others.

## Source Area Cleanup

Groundwater contamination at CSSA is associated with three VOC source areas that have been identified to date. Two source areas, Solid Waste Management Unit (SWMU) B-3 and SWMU O-1, are in the central portion of CSSA and affect the area designated as Plume 1. Cleanup activities at SWMU B-3 and O-1 involve soil vapor extraction (SVE) installed in 1997 and dismantled during the partial removal of VOC-contaminated soils at SWMU B-3. A new pilot SVE system was installed at SWMU B-3 in February 2004. Area of Concern (AOC)-65, was identified in the southwest corner of CSSA as the other potential source area and affects the area designated as Plume 2. Cleanup activities completed during the summer of 2002 include installation and testing of an SVE system, removal of over 600 cubic yards of contaminated soils, and lining some of the drainage features to minimize recharge around the building by routing rain water run-off away from the site. Testing of the AOC-65 SVE system is being conducted to evaluate its effectiveness and to optimize performance. A significant reduction in soil gas concentrations beneath AOC-65 and/or Building 90 have been observed since initial operation of the SVE system. Testing of the SVE system west of Building 90 is ongoing.

**Public Comment**

CSSA will continue to inform the public about various aspects of its environmental program. The public is welcome to comment on this fact sheet and the environmental activities at CSSA by writing to:

Installation Manager,  
Camp Stanley Storage Activity  
25800 Ralph Fair Road  
Boerne, Texas 78015-4800

You may also comment by calling:

- CSSA Installation Manager, Mr. Jason D. Shirley, at (210) 295-7416;
- EPA Regional Program Manager, Mr. Greg Lyssy, at (214) 665-8317; or
- Fort Sam Houston, Public Affairs Office, Mr. Phillip Reidinger, at (210) 221-1151 or (210) 336-0449 (mobile)

**Table 1 - Groundwater Sampling Results  
Off-post wells near Plume 1**

Well Number	PCE (ppb)	TCE (ppb)
FO-J1	0.18F	0.22F
FO-22	ND	ND
JW-7	0.39F	ND
JW-8	0.14F	0.22F
JW-9	ND	ND
JW-14	0.10F	ND
JW-26	ND	ND
JW-28	ND	ND
JW-29	ND	ND
JW-30	0.14F	0.27F
RFR-3	ND	ND
RFR-6	ND	ND
RFR-7	ND	ND
RFR-13	ND	ND

The MCL for PCE and TCE is 5.0 ppb  
ND = The VOC was not detected above the method detection limit.  
F = The VOC was not detected above the RL.  
Bold = Concentration > MCL

**Table 1, cont'd  
Off-post wells near Plume 2**

Well Number	PCE (ppb)	TCE (ppb)
HS-2	0.19F	ND
I10-2	0.11F	ND
I10-4	0.12F	ND
I10-5	ND	ND
I10-7	ND	ND
LS-2*	1.64	0.43F
LS-3*	1.59	0.26F
LS-4	0.18F	ND
LS-5	ND	0.19F
LS-6*	4.23	0.67F
LS-7*	1.85	0.33F
OFR-1	0.19F	ND
OFR-2	ND	ND
OFR-3*	1.75	2.21
RFR-10*	<b>11.7</b>	<b>5.55</b>
RFR-11*	<b>5.32</b>	0.58F
RFR-12	ND	0.18F

The MCL for PCE and TCE is 5.0 ppb  
ND = The VOC was not detected above the method detection limit.  
F = The VOC was not detected above the RL.  
Bold = Concentration > MCL  
\*These wells are equipped with a GAC filtration system. Results in this table are for samples collected prior to treatment by the GAC filtration system.

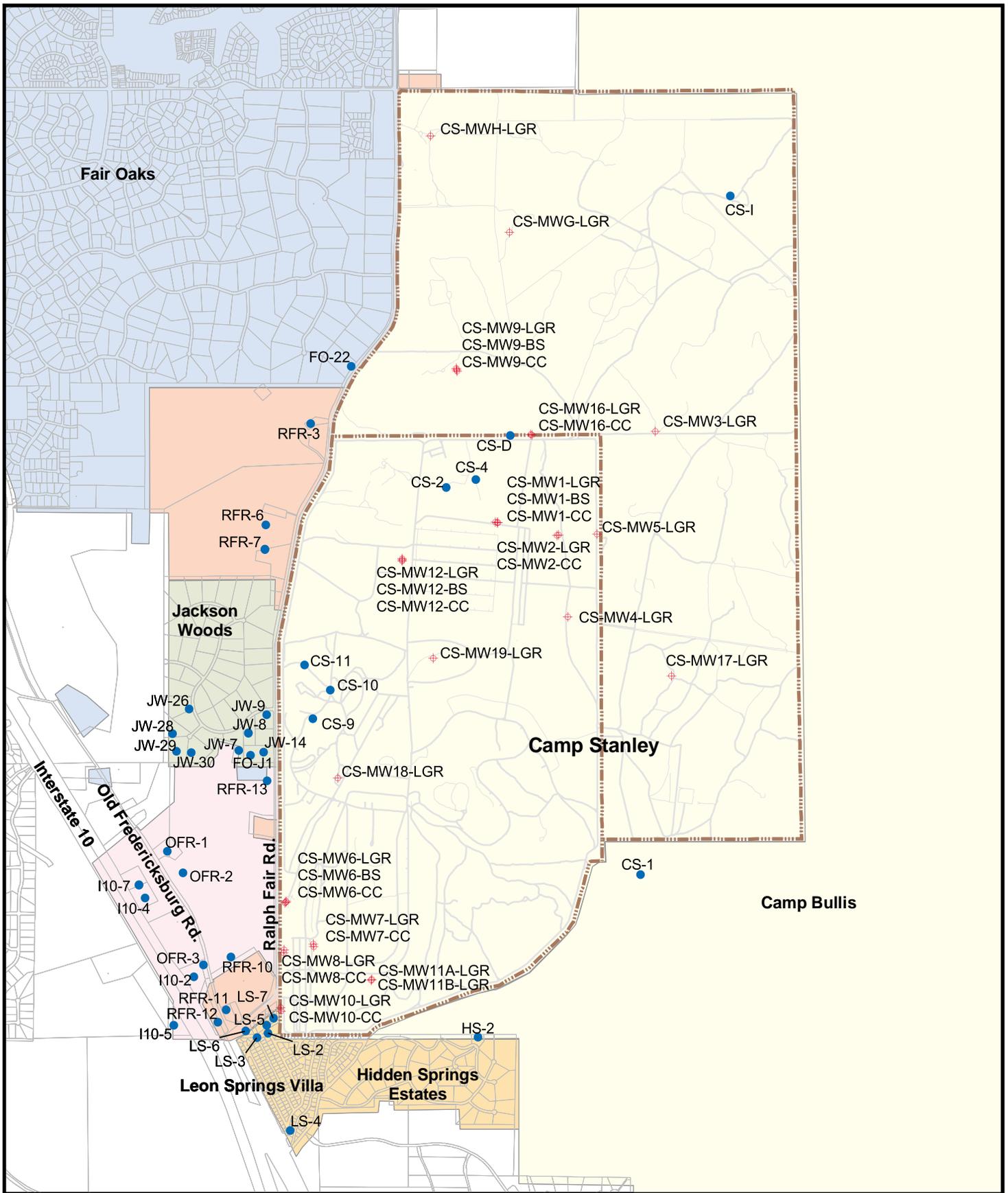


Figure 1

Water Well and Monitoring Well Locations Sampled in December 2004  
Camp Stanley Storage Activity



0 1,000 2,000 4,000 Feet

- Camp Stanley/Camp Bullis
- Ralph Fair Road Corridor
- I-10/Old Fredericksburg Road
- Leon Springs Villa/Hidden Springs Estates
- Jackson Woods
- Fair Oaks
- Water Well Locations
- Monitoring Well Locations